

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark Marsden on 07/29/09.

The application has been amended as follows:

In The Abstract:

The abstract has been replaced with the following:

----The present invention relates to two banana resistant genes, RGA5 and RGA2, and methods of producing transgenic plants having resistance to fusarium by transforming the plants with RGA5 or RGA2 polynucleotide sequences. The invention also relates to plants transformed with the RGA5 or RGA2 polynucleotide sequences, and methods of breeding plants for fusarium resistance by crossing transformed plants expressing RGA5 or RGA2 polypeptides with fusarium susceptible plants.----

In The Claims:

At claim 2, "a polynucleotide" is replaced with ---the polynucleotide---.

At claims 3, 5-7 and 9, "A" is replaced with ---The---.

At claim 4, "a" is replaced with ---the---.

At claim 8, "a nucleic" is replaced with ---the nucleic---.

At claim 14, "nucleome" is replaced with ---genome----.

At claim 15, "A" is replaced with ---The---.

Cancel claim 16.

At claims 17-21 and 23-25, "A" is replaced with ---The---.

Claim 22 (Currently amended). The [A] method according to claim 15 [16],  
wherein the expression of the polynucleotide confers the [differentiated] transgenic plant  
with enhanced resistance to disease.

Cancel claim 26.

Claim 27 (Currently amended). The [A] method of claim 22 [26], further  
comprising the step of growing the transformed plant to produce a transformed progeny,  
wherein the progeny is selected from seed, a plant part[s], and tissue [, and progeny  
plants derived from the differentiated transgenic plant].

Claim 28 (Currently amended). A method of breeding a plant for fusarium  
resistance, the method comprising identifying a plant that is resistant to fusarium wilt by  
detecting expression in the plant of a polynucleotide; and transferring from the plant

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genetic material corresponding to the polynucleotide *via* crossing and backcrossing to another plant of the same species, wherein the polynucleotide comprises a nucleotide sequence that is selected from the group consisting of: (a) a nucleotide sequence that encodes a polypeptide conferring fusarium resistance to a plant, or the [a] full length complement of the nucleotide sequence, wherein the nucleotide sequence is [selected from the sequence set forth in] SEQ ID NO: 1 or 3, (b) a nucleotide sequence that encodes a polypeptide conferring fusarium resistance to a plant and comprising the amino acid sequence set forth in SEQ ID NO: 2 or 4, or the [a] full length complement of the nucleotide sequence; and (c) a nucleotide sequence that [encodes a polypeptide that confers fusarium resistance to a plant, or a full length complement of the nucleotide sequence, wherein the nucleotide sequence] hybridizes to the [a] full length complement of (a) or (b) [a nucleotide sequence selected from the group consisting of the sequence set forth in SEQ ID NO: 1 or 3 and a nucleotide sequence that encodes the amino acid sequence set forth in SEQ ID NO: 2 or 4] under high stringency conditions, wherein the conditions comprise hybridization at 65°C in 1% BSA, 1 mM EDTA, 0.5 M NaHPO<sub>4</sub> (pH 7.2), 7% SDS, and washing at 65°C in 0.2 X SSC, 0.1% SDS.

Claim 29 (Currently amended). The [A] method according to claim 28, wherein the other plant is susceptible to fusarium wilt [a pathogen disease].

Claims 30-31, 33 and 35 are cancelled.

At claim 32, "A" is replaced with ---The---.

Claim 47 (Currently amended). An isolated polynucleotide comprising a nucleotide sequence encoding an amino acid sequence selected from the group consisting of:

(i) an amino acid sequence which confers fusarium resistance to a plant, wherein the amino acid sequence is [selected from the sequence] set forth in SEQ ID NO: 2 or 4;

(ii) an amino acid sequence which confers fusarium resistance to a plant and which is encoded by the nucleotide sequence set forth in SEQ ID NO: 1 or 3; and

(iii) an amino acid sequence which confers fusarium resistance to a plant and which is encoded by a nucleotide sequence that hybridizes under high stringency conditions to the [a] full length complement of the sequence set forth in SEQ ID NO: 1 or 3, wherein the conditions comprise hybridization at 65°C in 1% BSA, 1 mM EDTA, 0.5 M NaHPO<sub>4</sub> (pH 7.2), 7% SDS and washing at 65°C in 0.2 X SSC, 0.1% SDS.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571)272-0797. The examiner can normally be reached on M-TH 8:00 am to 5:30 PM, and every other Friday from 8:00 AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAI  
7/29/2009

/Medina A Ibrahim/  
Primary Examiner, Art Unit 1638